

CLAIMS

1. A metallic nickel powder which is treated in carbonic acid water solution, the metallic nickel powder comprising:
oxygen at a content of 0.3 to 2.0 wt%; and
an oxide layer 2 to 10 nm thick over the entirety of the surface thereof.
2. The metallic nickel powder according to claim 1, wherein the average particle diameter is in range of from 0.05 to 1 μm .
3. The metallic nickel powder according to claim 1, wherein the specific surface area by BET is in a range of from 1 to 20 m^2/g .
4. The metallic nickel powder according to claim 1, wherein the shape of the powder is spherical.
5. The metallic nickel powder according to claim 1, wherein the metallic nickel powder is a product of a gas-phase reaction in which nickel chloride gas and reducing gas are contacted and reacted, or a product of atomization thermal decomposition in which nickel compound easily decomposed by heat is atomized and thermally decomposed.
6. The metallic nickel powder according to claim 1, wherein the metallic nickel powder is treated in a carbonic acid water solution and is then heated in an oxidizing atmosphere.
7. The metallic nickel powder according to claim 1, wherein the metallic

nickel powder is treated in a carbonic acid water solution, is dried, and is then heated in an oxidizing atmosphere.

8. The metallic nickel powder according to claim 1, wherein a slurry of the metallic nickel powder produced by a gas-phase reaction method or an atomization thermal decomposition method, is washed in a carbonic acid water solution, and the treatment of carbonic acid water solution is then performed.

9. The metallic nickel powder according to claim 1, wherein the metallic nickel powder produced by a gas-phase reaction method or an atomization thermal decomposition method is washed with pure water, and the treatment of carbonic acid water solution is performed by blowing carbonic acid gas into the water slurry of metallic nickel powder after the washing with pure water.

10. The metallic nickel powder according to claim 1, wherein the metallic nickel powder produced by a gas-phase reaction method or an atomization thermal decomposition method is washed with pure water, and the treatment with carbonic acid water solution is performed by adding a carbonic acid water solution into the water slurry of the metallic nickel powder after the washing with pure water.

11. The metallic nickel powder according to claim 1, wherein the treatment in a carbonic acid water solution is performed at a pH in a range of pH 5.5 to 6.5.

12. The metallic nickel powder according to claim 1, wherein the treatment in a carbonic acid water solution is performed at a temperature in a range of 0

to 100°C.

13. The metallic nickel powder according to claim 6, wherein the heat treatment in an oxidizing atmosphere is performed at a temperature in a range of 200 to 400°C.

14. The metallic nickel powder according to claim 1, wherein the metallic nickel powder is for a conductive paste.

15. The metallic nickel powder according to claim 1, wherein the metallic nickel powder is for a multilayer ceramic capacitor.

16. A process for production of metallic nickel powder, the process comprising:

treating the powder in a carbonic acid water solution; and
heating the powder in an oxidizing atmosphere.

17. The process for production of metallic nickel powder according to claim 16, wherein the metallic nickel powder obtained by a contact reaction of nickel chloride gas and a reducing gas is treated in a carbonic acid water solution and is heated in an oxidizing atmosphere.

18. The process for production of metallic nickel powder according to claim 16, wherein the treatment in a carbonic acid water solution is performed at a pH in a range of pH 5.5 to 6.5.

19. The process for production of metallic nickel powder according to claim

16, wherein the treatment in a carbonic acid water solution is performed at a temperature in a range of 0 to 100°C.

20 The process for production of metallic nickel powder according to claim 16, wherein the heat treatment in an oxidizing atmosphere is performed at a temperature in a range of 200 to 400°C.

21. The process for production of metallic nickel powder according to claim 16, wherein the metallic nickel powder is treated in a carbonic acid water solution, is dried, and is heated in an oxidizing atmosphere.